

REMARKS

The Examiner is thanked for the indication that claims 1, 2, 4, 7, and 30-36 are allowed.

Claims 1, 2, 4, 7, and 30-43 are pending in the instant application. Claims 37-43 are newly presented. Entry of this amendment and consideration of the pending claims are respectfully requested.

New Claims

To expedite prosecution, Applicants will now briefly comment on newly presented independent claims 37 and 40.

Independent claim 37 recites, in pertinent part, “the at least three silicon and polysilicon interfaces forming a Bragg grating.” Applicants respectfully submit that the cited prior art of record fails to teach or suggest three or more silicon and polysilicon interfaces, nor does it teach or suggest silicon and polysilicon interfaces forming a Bragg grating. The **single layer** of polysilicon illustrated in FIGs. 2A and 2B of U.S. Patent No. 4,984,894 to Kondo does not constitute a Bragg grating, nor does Kondo make any mention of a Bragg grating.

Independent claim 40 recites, in pertinent part, “establishing a Bragg grating within the optical path with a plurality of electrodes positioned to perturb an effective index of refraction a plurality of times along the optical path.” Applicants respectfully submit that the cited prior art of record fails to teach or suggest establishing a Bragg grating using electrodes. Applicants note that U.S. Patent No. 5,379,318 to Weber (submitted herewith in an Information Disclosure Statement), with reference to FIG. 1, discloses,

On either side of the gain section, a plurality of grating sections, G1, G2, G3, and G4 are **disposed**.

Weber, col. 2, lines 48-49 (emphasis added). Accordingly, Weber discloses pre-existing grating sections G1, G2, G3, and G4 disposed in a substrate. These pre-existing grating sections are clearly illustrated in FIG. 1 of Weber. Weber further discloses,

By injecting carriers via the electrodes 30 into the grating sections the effective index of refraction, and thus the center wavelength of the refraction gratings, can be reduced.

Weber, col. 3, lines 31-34. Thus, Weber discloses reducing the center wavelength of pre-existing gratings using electrodes 30. However, Weber fails to teach or suggest **establishing** a Bragg grating using electrodes 30.

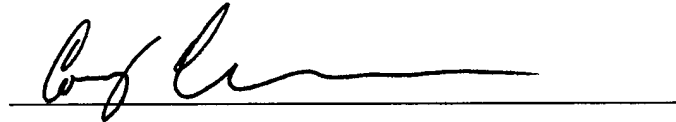
CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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